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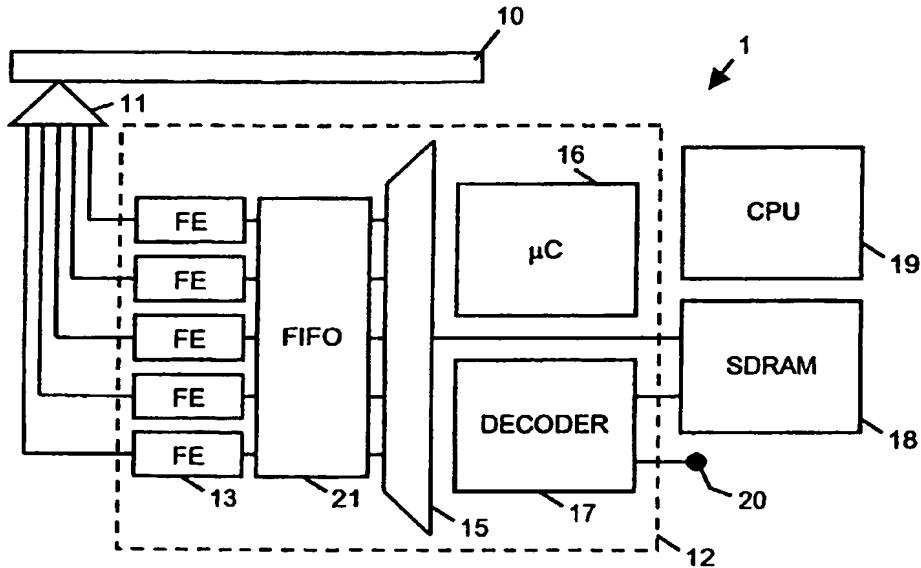
[Continued on next page]

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(54) Title: MULTITRACK OPTICAL DISC READER



(57) **Abstract:** A multitrack optical disc reader (1) is disclosed comprising a multitrack optical pick up (11) for reading data from multiple tracks of an optical disc (10) and outputting the data from each track in respective data streams, and multiple first-in-first-out (FIFO) memories (21) for temporarily storing the data streams. In accordance with the present invention, wherein the pickup may selectively output data streams from less than the maximum number of tracks that can be read by the pickup, the multiple FIFO memories are provided in a common memory bank, and when less than the maximum number of tracks are being read by the pickup, the size of at least one FIFO memory in use is greater than the total available FIFO memory in the common memory bank divided by the maximum number of tracks that can be read by the pickup.

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G11B G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 137 763 A (DAHAN SHALOM ET AL) 24 October 2000 (2000-10-24) abstract column 2, line 6 - line 18 column 3, line 25 -column 4, line 16; claims 1,6,21,25	1,2
Y A	----- -/-	3 5

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	"ALGORITHM FOR MANAGING MULTIPLE FIRST-IN, FIRST-OUT QUEUES FROM A SINGLE SHARED RANDOM-ACCESS MEMORY" IBM TECHNICAL DISCLOSURE BULLETIN, IBM CORP. NEW YORK, US, vol. 32, no. 3B, 1 August 1989 (1989-08-01), pages 488-492, XP000029766 ISSN: 0018-8689 the whole document -----	3
A	WO 98 37554 A (ZEN RES NV) 27 August 1998 (1998-08-27) abstract page 11, line 28 -page 17, line 3; figures 2-5 -----	1-5

INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)		Publication date
US 6137763	A 24-10-2000	AU 6193599	A	10-04-2000
		CA 2345321	A1	30-03-2000
		WO 0017873	A1	30-03-2000
		EP 1116232	A1	18-07-2001
		JP 2002525770	T	13-08-2002
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WO 9837554	A 27-08-1998	US 5907526	A	25-05-1999
		WO 9837554	A2	27-08-1998
		WO 9837555	A1	27-08-1998
		EP 1010171	A2	21-06-2000
		EP 1010172	A1	21-06-2000
		JP 2001511931	T	14-08-2001
		JP 2001511932	T	14-08-2001
		US 6381210	B1	30-04-2002
		US 6111831	A	29-08-2000
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